

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
San Juan River Response - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX

Subject: **POLREP #2**
 San Juan River Response

Shiprock, NM
Latitude: 36.8704828 Longitude: -108.7892506

To:
From: Kathleen Dillon, Situation Unit Leader

Date: 8/14/2015

Reporting
Period:

1. Introduction
1.1 Background

Site Number:	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority:	Response Type:
Response Lead:	Incident Category:
NPL Status:	Operable Unit:
Mobilization Date:	Start Date:
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

1.1.2 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican Hat, UT.

1.1.2.1 Location

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

1.1.2.2 Description of Threat

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes, including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

1.2 Incident Objectives

1. Safety

- Provide safe working environment for all response personnel.

- Maximize protection of public health and welfare.

- Identify safety issues and monitor adherence to Health and Safety Plan

2. Sampling

- Daily water and sediment sampling from 11 designated locations along the San Juan River

3. Water Replacement

- Procure water trucks and water points to be used for local agriculture and livestock

- Work with Navajo representatives to staff water points and organize distribution

4. Public Outreach

- Coordinate public forum at which Navajo tribal leaders and community members can address Incident Command representatives.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Daily operations are focused around gathering water and sediment samples from 11 designated locations in the San Juan River. The Glen Canyon ICP is overseeing sampling in the vicinity of Lake Powell.

Water trucks to address Navajo agricultural and livestock needs have been secured and will be continuing to deliver water to designated locations. The Unified Command has also identified a need on the Navajo reservation to provide feed for livestock.

2.1.2 Response Actions to Date

An Incident Command Post was established in Farmington, NM on 8/9/2015.

Representation at the Command Post includes EPA Region 9, US Coast Guard, Weston, EQM, ERS, and Navajo liaisons.

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered from the shoreline of following 11 designated locations along the San Juan River:

San Juan River at LaPlata Highway (SJLP)
PNM Intake (SJFP)
San Juan River at Hogback (SJHB)
San Juan River at Shiprock (SJSR)
San Juan DS from Shiprock (SJDS)
San Juan River at Four Corners (SJ4C)
San Juan River at McElmo Creek (SJME)
San Juan at Montezuma Creek (SJMC)
San Juan River at Bluff Bridge (SJBB)
San Juan River at Mexican Hat (SJMh)
McElmo Creek Tributary (MECT)

On August 13, in addition to gathering shoreline samples, teams performed an assessment to determine locations that could serve as entry/exit points for air boats and other small water craft. Starting today, samples will be taken from points SJLP, SJFP, and SJHB by boat. The other 8 points will be taken as shoreline samples.

Water has begun to be delivered to Navajo Nation for livestock and agriculture. Yesterday, 11,000 gallons of water were delivered to Hal Chita, UT for use for livestock. 7,000 gallons of water was delivered to Shiprock, NM for agricultural use. Today, implementation of irrigation and agricultural systems will continue to be delivered to Navajo Nation. It is anticipated that water will be staged at 11 points throughout Navajo Nation.

Community outreach with Navajo Nation has increased and will continue to be an integral part of ongoing Region 9 operations. EPA representatives will be meeting with three Navajo chapters today including Aneth, Oljeto, and Kayenta. At this point, contact has been established with all 11 Navajo chapters and follow-up will continue with each of these chapters.

A liaison is anticipated to be placed in the Navajo ICP in Shiprock to further the relationship between the EPA and Navajo Nation.

A second ICP was established on August 13 at the National Park Service Glen Canyon Headquarters. The National Park Service is providing EPA Region 9 with office space, logistical support, and housing. The focus of this ICP will be sampling Lake Powell in addition to performing community outreach. Coordination between the EPA, USGS, City of Paige, and Arizona Department of Environmental Quality has been established at this location.

The area between Mexican Hat to the beginning of the San Juan Arm of Lake Powell is difficult to access. Yesterday, START contractors deployed from Page, AZ yesterday to collect water and sediment samples from Clay Hills Crossing, which is about 30 miles downstream from Mexican Hat. The contractors are expected back by mid-day today. After the START contractors return, sampling will be initiated on Lake Powell. The National Park Service will be providing a vessel and an operator to support sampling. Surface water samples will be collected along the main axis of Lake Powell with a focus on collecting sediment and surface water samples from the San Juan Arm of Lake Powell up to the point where the San Juan River enters Lake Powell. Sampling at these locations is expected to run from today through Sunday.

A pre-existing sampling expedition is scheduled to begin August 19 and last 1-2 weeks. The EPA OSC heading efforts out of the Glen Canyon ICP is aiming to have this pre-planned sampling event expanded to include analysis related to the Gold King Mine response.

2.2 Planning Section

2.2.1 Anticipated Activities

Region 9 will be changing Incident Commanders this morning. Bret Moxley will be taking over for Randy Nattis.

Sediment and water sampling of the eleven data points on the San Juan River

will continue. Three samples today will be gathered from the middle of the channel via small boat. The other 8 samples will continue to be gathered from the shoreline.

Sampling in the vicinity of Lake Powell will also continue out of the newly established Glen Canyon ICP.

Today, a more robust water distribution system will be established throughout Navajo Nation. Yesterday, one point for water to be used for agriculture and one point for water to be used for livestock were established and 18,000 total gallons were delivered.

Additional representatives from the EPA's community relations have arrived at the Farmington ICP. These members will be meeting with the Aneta, Oljeto, and Reiyenta Navajo chapters today. At this point, the EPA has established communication with all 11 Navajo chapters and will be continuing following up with all chapters.

2.2.1.1 Planned Response Activities

Continued daily water and sediment sampling is planned.

Locations for staging of water has been identified within each of the 11 Navajo chapters. This water will be available for use by Navajos for agriculture and livestock.

Community Outreach Branch at Farmington ICP has grown in personnel and will continue outreach with members of Navajo nation. Today meetings are being held with the Aneth, Oljeto, and Kayenta chapters. Tomorrow chapter meetings are anticipated to include Upper Fruit Land, Hogback, Nenahnezad, and San Juan.

2.2.1.2 Next Steps

Potential procurement of additional water craft to be used for sampling from the middle of San Juan River.

Improve relationship with Navajo Nation.

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2.2.2 Issues

No current relationship established with Navajo EPA. Establishing this relationship would likely be a great assist to Region 9's response.

2.3 Logistics Section

Process is currently being put in place for requesting and acquiring resources.

One sampling group ran out of some sampling materials yesterday. Shipment from FedEx arrived this morning and sampling team has departed for designated locations with no interruption to sampling plan.

There is a need for a Logistics Chief, Liaison Officer, 2 Documentation Unit Leaders, and 2 Resource Unit Leaders. Resource Requests have been submitted.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Personal Flotation Devices must be worn by all members of sampling teams while underway on any watercraft. When performing boat operations, a representative from each vessel must contact the Situation Unit Leader at intervals of no more than two hours stating location and current operations. Any lightning sighting will cause a stop to operations.

With weather being forecasted into the mid 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

2.5.2 Liaison Officer

Liaison officer is continuing outreach with community members and representatives of the Navajo Tribe via the following mediums.

Shiprock Chapter Meeting Recap: EPA Staff Randy Nattis, Secody Hubbard, David Yogi, and Dan Heisner participated in a special meeting held at the Shiprock Chapter House from 15:00-19:00. The meeting was attended by approximately 450 residents. Scope of presentation, delivered by Secody and Randy, focused on what EPA R9 were doing to assess contaminants in the river and how we wanted to hear from the community about water needs so we can assist. Randy and Secody were commended by the Shiprock chapter president, and thanked by the area director of BIA, and New Mexico State Assembly Representative Sharon Chilleage for their presentation. National Public Radio, Gallup Independent newspaper attended.

KNDN AM 960 Radio: Randy Nattis delivered remarks in an open mic format over Navajo AM radio KNDN before his presentation before the Shiprock Chapter. Remarks consisted of the content of the presentation delivered to the Shiprock Chapter meeting attendees.

Fact Sheet on Region 9 Response Activities: EPA R9 staff in Region 9 have completed a draft of text to be included in a factsheet encompassing EPA R9's response activities along the San Juan River.

Two Public Presentations Scheduled for Friday: EPA R9 staff will present the status of Region 9 response activities to sample the San Juan River and provide water services at two public meetings on Friday, August 12 at Aneth Chapter and Oljeto Chapter to residents.

A more concrete schedule for meeting with each chapter of Navajo Nation is being established.

2.5.3. Weather Forecast

Weather forecast for Friday, August 14, 2015:

FARMINGTON AREA

Today

A mix of sun and clouds with a high of 95, low of 62 and 20% chance of precipitation. Wind coming out of the East at 9 miles per hour.

Tonight

No chance of precipitation after 7 pm. Partly cloudy, with a low around 62.

Tomorrow

Sunny with a high of 94 and low of 64. 20% Chance of precipitation.

3. Participating Entities

3.1 Area Command

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

3.2 Unified Command and Cooperating Agencies

The UC includes EPA Region 9 and United States Coast Guard. Farmington, NM Incident Commander is changing command this morning. Randy Nattis will be passing command to Bret Moxley.

4. Personnel On Site

EPA - 10

Weston START - 8

Environmental Quality Management - 2

USCG - 7

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epa.gov/goldkingmine

7. Situational Reference Materials

No information available at this time.